

- \* SWBAT differentiate between mass, weight, and volume
- \* SWBAT observe the tendencies of objects

Sep 6-2:31 PM

# Welcome!!!

SECA Physics  
Wednesday 24 September 2014

- \* Pick up: **H. Leslie Grebe**
  - whiteboard, marker, & eraser
  - slip of paper (for later)

## Opening Activity:

Objects at rest tend to stay at rest.

Objects in motion tend to stay in motion.

What should we call this tendency???

# INERTIA



Centering...

Sep 7-7:04 AM

# NEWTON'S 1<sup>ST</sup> LAW

MATTER

Objects at rest tend to stay at rest.

Objects in motion tend to stay in motion.

**INERTIA** is the name for the tendency of matter to resist changes.  
PROPERTY

<http://www.youtube.com/watch?v=bebSxF0rr5I>

- Bill Nye theme
- Discuss side board

LESLIE: INERTIA IS

STUDENTS: MATTER RESISTING CHANGE

Sep 20-1:38 PM

MASS IS A MEASURE OF INERTIA HOW HARD IT IS TO PUSH OR PULL  
↳ KILOGRAMS (kg)

WEIGHT IS A FORCE DUE TO GRAVITY  
↳ NEWTONS (N)  
(also pounds)

$$W = m \cdot g$$

ON EARTH

VOLUME HOW MUCH SPACE DOES SOMETHING TAKE UP.  
↳ CUBIC METERS (m<sup>3</sup>)  
↳ LITER (L)

Sep 27-3:00 PM

### How about some practice...

1. If I take this metal chunk to the moon  
Will it change its mass, weight, volume?  
NO YES NO
2. If I crush an empty soda pop can  
Will it change its mass, weight, volume?  
NO NO YES
3. If I flatten out a blob of Play Doh  
Will it change its mass, weight, volume?  
NO NO NO
4. Which has more volume: PAPER  
a pound of crumpled paper or a pound of metal?
5. Which has more weight:  
a pound of crumpled paper or a pound of metal? SAME
6. Which has more mass:  
a pound of crumpled paper or a pound of metal? SAME

Sep 21-2:13 PM

## Now more individual practice...

Alone or with another person, work on the questions on the worksheet.  
Use the terms, ask for help if you need it.

### When you are finished:

- \* Make sure you understand the terms on the board.  
(They will be erased for the 3 questions.)

Sep 24-7:36 AM

**Daily 3 Questions**

- \* Every day except test/project days
- \* 3 Questions on the topics of the day
- \* Main source of daily points
- \* I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

CP homework - Inertia and  
Mass worksheet (due Friday)

You can't get your points if you don't have your **NAME!!!**

| Name | Period |
|------|--------|
| 1.   |        |
| 2.   |        |
| 3.   |        |

Sep 9-7:32 AM

1. \_\_\_\_\_ is the name for the tendency of matter to resist changes in its motion.

- ☒ A. Inertia
- ☐ B. Mass
- ☐ C. Weight
- ☐ D. Volume

2. If I crush an empty soda pop can, I am changing its

- ☐ A. Mass
- ☐ B. Weight
- ☒ C. Volume
- ☐ D. All of the above

3. What is the standard unit for mass?

- ☐ A. meters (m)
- ☒ B. kilograms (kg)
- ☐ C. newtons (N)
- ☐ D. None of the above

Sep 14-7:28 AM